

TSMC-01-1503



March 9, 2004

To: Commissioner for Patents  
P.O.Box 1450  
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572  
28 Davis Avenue  
Poughkeepsie, N.Y. 12603

Subject: | Serial No. 10/763,306 01/23/04 |  
Shih-Wei Chou et al.  
METHOD TO IMPROVE PLANARITY OF  
ELECTROPLATED COPPER  
| \_\_\_\_\_ |

#### INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation  
In An Application.

The following Patents and/or Publications are submitted to  
comply with the duty of disclosure under CFR 1.97-1.99 and  
37 CFR 1.56.

#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being  
deposited with the United States Postal Service as first class  
mail in an envelope addressed to: Commissioner for Patents,  
P.O. Box 1450, Alexandria, VA 22313-1450, on March 16, 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

Step B. Ackerman 3/16/04

U.S. Patent 6,346,479 to Woo et al., "Method of Manufacturing a Semiconductor Device having Copper Interconnects," discloses manufacturing high density semiconductor devices with submicron design features.

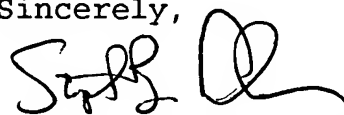
U.S. Patent 6,207,222 to Chen et al., "Dual Damascene Metallization," discloses multi-step plating to fill a Cu dual damascene opening.

U.S. Patent 6,140,241 to Shue et al., "Multi-Step Electrochemical Copper Deposition Process with Improved Filling Capability," describes a multi-step electrochemical method for forming a copper metallurgy on an integrated circuit which has high aspect ratio contact/via openings.

U.S. Patent 6,136,707 to Cohen, "Seed Layers for Interconnects and Methods for Fabricating Such Seed Layers," discusses a method for making metallic interconnects.

U.S. Patent 5,814,557 to Vankatraman et al., "Method of Forming an Interconnect Structure," discloses an interconnect structure formed by filling a dual damascene structure with conductive material.

Sincerely,

A handwritten signature in black ink, appearing to read "S. B. Ackerman", with a large, stylized "A" at the end.

Stephen B. Ackerman,  
Reg. No. 37761

Form PTO-1449

INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)

TSMC-01-1503

Application Number

10/763,306

Applicant

Shih-Wei Chou et al.

Filing Date

01/23/04

Group Art Unit

## U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILED DATE & APPROPRIATE
	6346479	2/12/02	Woo et al.	438	687	6/14/00
	6207222	3/27/01	Chen et al.	427	97	8/24/99
	6140241	10/31/00	Shue et al.	438	692	3/18/99
	6136707	10/24/00	Cohen	438	687	10/2/99
	5814557	9/29/98	Venkatraman et al.	438	622	5/20/96

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Portmox Pages, Etc.)


EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.